



XVIII. International Plant Protection Congress

Mission possible: food for all through appropriate plant protection



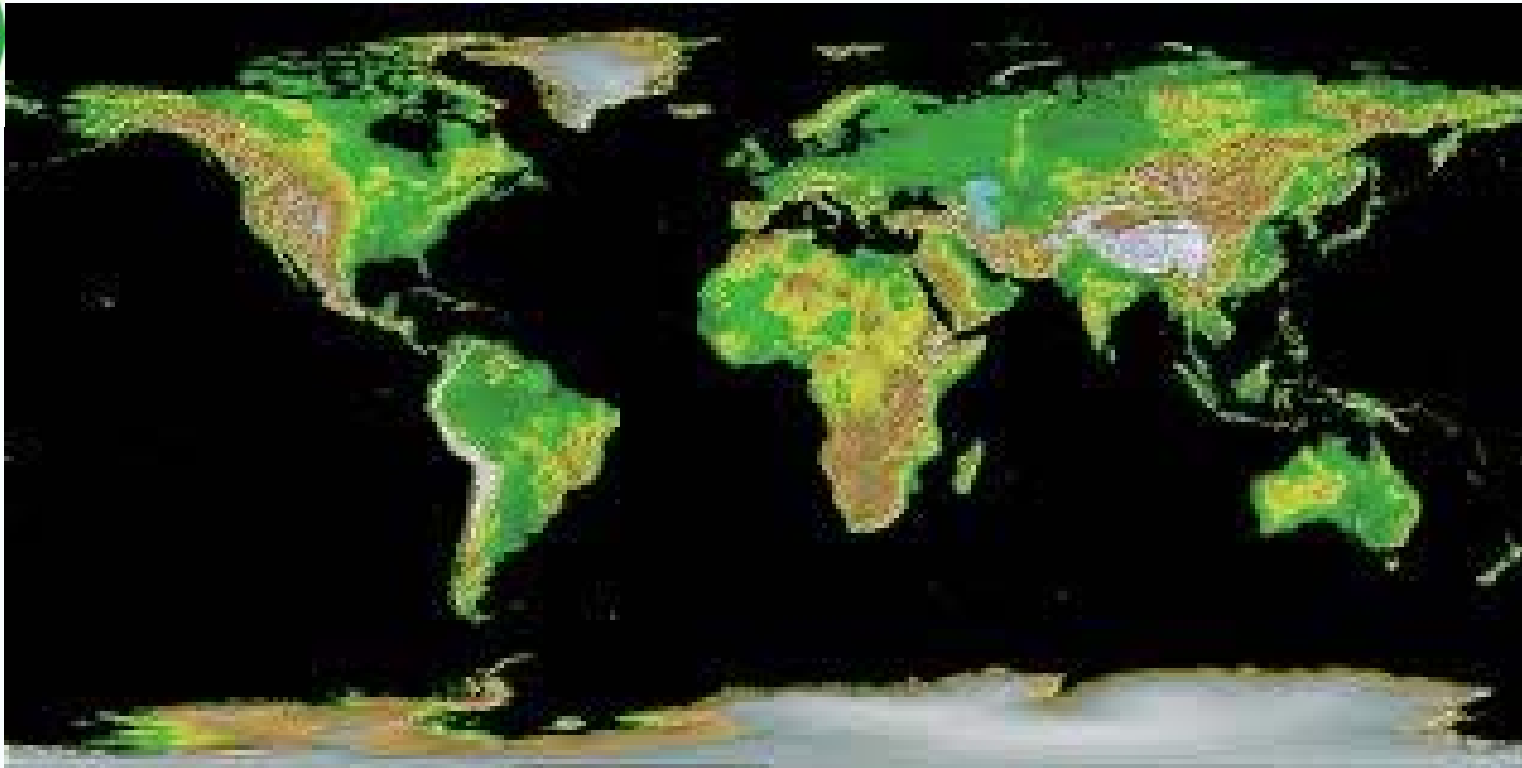
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***Plant Medicine,
a new University science and
Plant Medicine Doctor, a necessary profession for
the benefit of global agriculture:
Arguments and actions for their establishment***

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- ✓ *Special thanks to the organizers for giving me the opportunity*
- ✓ *to present my proposal that Global Agriculture needs **scientists specialised in Plant Medicine at a University level***
- ✓ *and emphatically stress that **Plant Medicine and Plant medicine doctors**, are the missing links between Plant Medicine sciences and their application world-wide.*

PLANT SCIENCES, AGRONOMY, AGRICULTURE and PLANT MEDICINE



- ✓ *Indeed I believe that the key message of the XVIII IPP congress....*
- ✓ *Food for all through appropriate plant protection*
- ✓ *is directly related to the evolution and expansion of Agronomy to include Plant Medicine (Phytiatry) as a modern and distinct University science.*



PLANT MEDICINE OR PHYTIATRY:

- ✓ *This presentation*
- ✓ *is focusing on 10 very important **arguments**, and 10 **actions** concerning specialization on basic and applied disciplines of Plant Medicine for establishing **a new profession of Plant Medicine doctors.***



PLANT MEDICINE



Late Prof. George Agrios,

*in the University of Florida, has introduced 15 years ago,
the relative term in a PH.D. program in Plant Medicine
instead of Plant Protection currently prevailing world-wide.*



Why do I also propose the establishment of Plant Medicine?

Aren't we satisfied from the current situation?

- ✓ *Currently agronomists, biologists and other related plant scientists acquire generalized and limited University knowledge on plant protection with restricted reference on plant medicine education.*
- ✓ *Besides, specialized Plant Pathologists, Entomologists, Weed science specialists and Plant stress scientists are suitable mainly for the Private or State sector, Research centres or Universities.*



What Plant Medicine could be?

- ✓ *All should agree that Plant Protection is a rather limited term.*
- ✓ *Obviously Plant Medicine or Phytiatry as Medicine in humans and Veterinary in animals, could be a distinct multidisciplinary University science.*
- ✓ *A five-year course University science, as stands internationally for Veterinary, which could include over 40 different Plant Medicine disciplines along with other Related Agronomic sciences.*
- ✓ *Besides it could include all measures and regulations concerning Plant Protection and Plant Health taking into account environment, food safety, food security and costs in crop production.*



ARGUMENTS

***MAJOR ARGUMENTS FOCUSED ON THE
CRITICAL CONTRIBUTION
OF PLANT MEDICINE DOCTORS
CONCERNING PLANT MECINE APPLICATION***



ARGUMENT-1

Plant Disease and Pest Diagnosis

We do need

a new distinct profession of Plant Medicine Doctors
to fulfill the requirements of a modern and accurate
identification of pests and diseases of plants in the
global agriculture



ARGUMENT-2

Similarities in symptom expression

Plant medicine doctors able

to distinguish the complicated field and orchard cases of disease and pest recognition expressed with similar, thus misleading symptomatology.



ARGUMENT-3

Quarantine pests and pathogen

Plant medicine doctors able

***to contribute in consulting farmers and inspecting
for Quarantine pests and pathogens
to avoid their entrance and dispersal in regions,
countries or continents.***



ARGUMENT-4

Suitable Pest Management

Plant medicine doctors able

- ✓ to suggest suitable Pest Management,***
- ✓ to introduce Disease and Pest forecasting/risk assessment models,***
- ✓ to contribute to best Pesticide Selection for securing effectiveness and food safety.***



ARGUMENT-5

Postharvest Plant Medicine

Plant medicine doctors able

***to deal with complicated and so costly
problems of Postharvest Plant Medicine.***





ARGUMENT-6

Mycotoxins and plant medicine

Plant medicine doctors able

*to deal with the impact of mycotoxins on food safety,
food quality and world trade and suggest measures
for management of mycotoxicogenic fungi.*



ARGUMENT-7

***Plant nutrition instructions
related to plant health***

***Plant medicine doctors able
to suggest appropriate Plant nutrition
instructions,
to secure best
plant growth related to crop health.***



ARGUMENT-8

***Plant medicine doctors able
to guide the farmers in producing
quality products both for human
consumption and animal feed.***



ARGUMENT-9

Agricultural Environment and farmers health

Plant medicine doctors able

*to contribute in protecting Agricultural
Environment and*

*instruct farmers to take care of their farms, the
agricultural environment and their personal
health.*



ARGUMENT-10

Contribution in reducing cost production

Plant medicine doctors able

- ✓ ***to contribute in reducing Unjustifiable Expenses or High Costs in crop production,***
- ✓ ***through accurate diagnosis, best selection of measures and appropriate timing in application.***



ACTIONS

***MAJOR CURRENT AND FUTURE
INTERNATIONAL ACTIONS
RELATED TO VARIOUS FIELDS AND
DIRECTIONS***



ACTION-1

We need qualified university practitioners

- ✓ ***Privately or University run Plant Diagnostic Clinics are operating around the globe,***
- ✓ ***But are they enough for the field, farm, or orchard owner at the sites of action or do we need the plant doctors as qualified university practitioners ????***



ACTION-2

Education at Universities

Undergraduate and Postgraduate studies

- ✓ ***The Ph.D. or Master Degree specialists graduating from various existing scientific disciplines are mainly working in Extension plant clinics***
- ✓ ***but well educated plant medicine doctors as practitioners are missing.***



UNDERGRADUATE STUDIES

*Specific University studies in Plant Medicine
Indeed only in*

- ✓ *California State University – Fresno*
- ✓ *Serbia and Bulgaria*
- ✓ *offer degrees in Plant Protection, while*
- ✓ *Departments of Plant Medicine have been established in*
- ✓ *National Pingtung University of Science and Technology in South Korea*
- ✓ *Chungbuk National University in Taiwan*



POSTGRADUATE STUDIES

*under the name of **PLANT MEDICINE** today*

- *The University of Florida introduced*
- *The Multidisciplinary Doctor of Plant Medicine program in crop and plant health education focused mainly on Entomology and Nematology Plant Pathology, Plant Soil and Weed Science*
- *Designed to provide premier professional doctoral training for plant scientists.*



Similarly the Doctor of Plant Health Programm *University of Nebraska*



- ✓ *The Professional Program in Plant Health*
- ✓ *designed to train practitioners rather than researchers in entomology, agronomy, plant pathology and soil science.*
- ✓ *Graduates of the Doctor of Plant Health program are in demand worldwide for their comprehensive knowledge and experience, resulting in 100% job placement.*



Resently IN EUROPE

MSc in Plant Protection (Plant Doctor) in Hungary

Plant Doctor (MSc) and Plant Protection Expert Engineering education in Hungary

Aims: integrated knowledge about the biology of plant pathogen organisms (microbes, animals, weeds), moreover technical, technological, economical, toxicological and law on the field of plant protection. Later: ecological, environment protection, molecular biological, plant biotechnological, resistance biological knowledge.

These integrated knowledge provided IPM/ ICM supported decisions from the beginning!

2010: MSc in Plant Protection (Plant Doctor)

4 semester, 120 credits

Nowadays: both education is available, the MSc in english as well.





IN MEDITERRANEAN COUNTRIES

Italy

Masters' degree in Plant Medicine



**UNIVERSITÀ
DEGLI STUDI DI BARI
ALDO MORO**



UNIVERSITY OF THESSALY

In Greece
University of Thessaly

Postgraduate program on
Plant Medicine and Environment



ACTION-3

COOPERATION IN INTERNATIONAL TRAINING

***Post graduate programs organized in Asia and
Africa in cooperation with the University of
Florida
prove the necessity for specialization.***



International joint
Master degree
in Plant Medicine

158875-TEMPUS-IT-JPCR
Joint Project - Clinical Reform
EAC/61/2009
(Agreement number 2009-4861 / 001-001)

With the support of
the European Union
Tempus

Moving towards a joint degree

International joint Master degree in Plant Medicine

**ITALY, GREECE, BULGARIA
,
SERBIA, KROATIA, FYROM,
KOSOVO, ALBANIA**

158875-TEMPUS-IT-JPCR

TEMPUS
Modernising higher education





ACTION-4

Alarming cases for urgent steps

- ✓ ***Alarming cases need urgent steps to be taken as proposed by APS, BSPP***



ALLERTS IN BRITAIN

Alarming reaction by British Society for Plant Pathology

Stating among others that

- ✓ *Plant pathology education in Britain needs to be revived, to reverse the decline in expertise and to give farmers and foresters better ways of controlling plant diseases.*

*By organizing Campaigns to attract youngsters with
the message*



Become a plant doctor



✓ *But they wrongly refer to plant pathologists only*



APS YOUTUBE PLANT DOCTORS

APS produced and provides alarming Youtube videos to emphasize the emerging need for plant doctors.









ACTION -5

Joint international congresses

- ✓ *Joint international meetings of related plant medicine societies*
- ✓ *should be encouraged to be co-organized,*
- ✓ *since they highlight common problems in plant health and prove the integral necessity of applied plant medicine.*



ACTION-6

Beyond APS and BSPP stating the need for plant doctors

The existing Plant Medicine Societies using the terms

***Phytomedicine, Medicina de le piante, Plant medicine,
Phytiatry or Plant Health***

***reflect their focusing on an attractive name for a new
profession and a necessary science***

***But also highlight the role of plant medicine doctors in
modern agriculture***

Here are some of them.....



Swiss Society for

● Phytiatry (SSP)

Schweizerische Gesellschaft für Phytomedizin
Società svizzera di fitoiatria
Swiss society for phytiatry



The German Phytomedicine Society (DPG)



- *The German Phytomedical Society (DPG) is the largest scientific association in plant protection and plant health in Germany*
- *The Society is membership-based 1200 members, are professionals within the **entire field of phytomedicine** Science for Practice*
- ***Phytomedicine** is the science of plant disorders (whether biotic or abiotic), their diagnosis, management and control*

Hellenic Society of Phytiatry

- *The Hellenic Society of Phytiatry was established in Greece in 2009*





The Spanish Association of Plant Health (AESaVe)



*AESaVe is a society committed to promote plant health as **a specialized profession** in Spain through enhancing the need for specific training at Spanish universities on plant health disciplines, while at the same time enhancing the perception by society of the critical role played by plant health on agro-forestry sustainability and food security.*





ACTION-7

Elimination of Empirical plant Medicine doctors..... in the 21st century

- ✓ *Several people consider that services in **applied Plant Medicine** could still be based on a general crop production knowledge,*
- ✓ *simply accumulated through a short-term training, or everyday practice and be backed by the pharmaceutical companies.*
- ✓ *And then everybody could claim that he is plant medicine doctor and dare to use the term.....*



Plant Doctor_x





ACTION-8

Time for common Action

- ✓ *Universities, Academia, along with related Scientific Societies, the Private sector and Farmer unions could play a substantial role in international cooperation to promote establishment of Plant Medicine in Universities.*
- ✓ *From my long-standing experience I believe that postgraduate studies should come as a step next to undergraduate studies in Plant Medicine.*



ACTION-9

Creation of a crucial mass of people for global action is needed

- ✓ *Personally after presenting my thoughts in **International meetings....***
- ✓ *Rome Italy 2010, Cyprus 2012, Valencia, Spain 2012, Istanbul, Turkey 2014, several times in Athens, Greece and now in Berlin, Germany 2015*
- ✓ *I would be willing to collaborate with all those who share the same thoughts, towards changing the current situation and offering to the farmers real plant medicine doctors.*

ACTION-10

Time for common Action with the pioneer role of the IAPPS



- ✓ *If IAPPS endorses a direct common action, personally I would be very pleased **to host in Athens a short meeting** among representatives of societies with the pioneer role of IAPPS*
- ✓ ***to initiate discussions and create the basis for direct actions for establishing University plant medicine world-wide.***

● ***PLEASE CONTACT me at e-mail ect@aua.gr***



THANK YOU SO MUCH FOR YOUR ATTENTION

